

PAT-NO: JP410220319A  
DOCUMENT-IDENTIFIER: JP 10220319 A  
TITLE: FUEL INJECTION VALVE  
PUBN-DATE: August 18, 1998

INVENTOR-INFORMATION:  
NAME  
TAKEDA, HIDETO  
IWANARI, EIJI

ASSIGNEE-INFORMATION:  
NAME COUNTRY  
DENSO CORP N/A

APPL-NO: JP09023484  
APPL-DATE: February 6, 1997

INT-CL (IPC): F02M051/06

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a fuel injection valve having a movable portion which can be hardened with ease and high accuracy while securing required characteristics.

SOLUTION: In a fuel injection valve, a movable portion 20 consists of a needle valve 21 and a movable core 23, which are molded integrally with each other by sintering. The needle valve 21 is sintered with sintered powder including mainly hardenable martensitic stainless steel as a non-magnetic material. The movable core 23 is sintered with sintered powder including

mainly ferrite stainless as a soft magnetic material. Even if the needle valve 21 is deformed due to vacuum hardening which is purposed to increase hardness, the needle valve 21 can be hardened with high accuracy without deteriorating the hardness of the needle valve 21 by a post-machining such as grinding. Integral molding of the needle valve 21 and the movable core 23 with each other can reduce man-hours needed to harden the movable portion 20, thereby making high assembling accuracy unnecessary, so as to facilitate hardening of the needle valve 21 and the movable core 23.

COPYRIGHT: (C)1998,JPO